

## **REMARKS**

Claims 1-28 were pending in this application when the Final Office Action was mailed (November 1, 2005). Claims 1, 11, and 19 have been amended, and no claims have been canceled. Accordingly, claims 1-28 are currently pending in the present application.

In the Final Office Action mailed November 1, 2005, claims 1-28 were rejected. More specifically, the status of the application in light of this Office Action is as follows:

(A) Claims 1-8 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,054,373 to Tomita et al. ("Tomita");

(B) Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Tomita in view of U.S. Patent No. 6,399,517 to Yokomizo et al. ("Yokomizo");

(C) Claims 9, 11-17 and 19-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tomita in view of U.S. Patent No. 5,762,755 to McNeilly et al. ("McNeilly"); and

(D) Claims 18 and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tomita in view of McNeilly and Yokomizo.

As a preliminary matter, the undersigned attorney wishes to thank the Examiner for engaging in a telephone interview on February 27, 2006. During the telephone interview, the Examiner and the applicants' representatives discussed the invention contained in this application and the cited references – Tomita and McNeilly. The Examiner provisionally agreed that the original claims with the foregoing amendments overcome the rejections based on Tomita and McNeilly. The Examiner, however, reserved the right to further consider the propriety of combining these references. The following remarks reflect and expand upon the points discussed during the February 27 telephone interview. As such, applicants request that this paper also constitutes applicants' Interview Summary.

A. Response to the Section 102(b) Rejection

Claims 1-8 were rejected under 35 U.S.C. § 102(b) as being anticipated by Tomita. Claim 1 has been amended to indicate that the processing chamber has a "polymeric wall," and "the polymeric wall being more transmissive of an operative wavelength range of the radiation than the etchant liquid, thereby a temperature of the etchant liquid is increased more rapidly than a temperature of the polymeric wall." Support for this subject matter can be found, for example, at the following locations: page 12, paragraph [0033], and page 17, paragraph [0048]. As described below, Tomita fails to disclose or suggest all the features of these claims. Accordingly, the Section 102(b) rejections of these claims should be withdrawn.

Claim 1, as amended, is directed to a method of processing a microfeature workpiece. The method includes supporting a microfeature workpiece by an unheated support in an interior of a processing chamber having a polymeric wall and contacting a surface of the microfeature workpiece with an etchant liquid. The polymeric wall of the processing chamber is substantially non-reactive with the etchant liquid. The method also includes heating the etchant liquid by delivering radiation from a radiation source through the wall of the processing chamber to heat the etchant liquid. The polymeric wall is more transmissive of an operative wavelength range of the radiation than the etchant liquid; thereby a temperature of the etchant liquid is increased more rapidly than a temperature of the polymeric wall. The method further includes controlling the radiation source to maintain a temperature of the etchant liquid at or above a target process temperature to etch the surface of the microfeature workpiece and removing the etched microfeature workpiece from the processing chamber.

Tomita discloses an apparatus for removing metallic impurities diffused in a semiconductor substrate. The apparatus includes a quart beaker 21, a quart holder 22 for holding a silicon substrate 23 in the quart beaker 21, a chemical liquid in the quart beaker 21, and an external infrared heater 24 for heating the silicon substrate 23. The infrared heater 24 heats the inside of the substrate 23 to as high a temperature as possible to remove impurities from the substrate 23. The substrate temperature should be as high as possible as long as the temperature is lower than the boiling point of the

chemical liquid (column 7, lines 33-35). The highest treatment temperature in the case of the chemical agent is about 290°C to 350°C for sulfuric acid (column 5, lines 62-64).

Claim 1 is patentable over Tomita because Tomita fails to teach or suggest at least one feature of claim 1. For example, assuming for the sake of argument, that Tomita's beaker corresponds at least in part to the processing chamber of claim 1, Tomita neither teaches nor suggests that the processing chamber has a polymeric wall. Instead, Tomita discloses using a quartz beaker as the processing chamber. As a result, Tomita cannot possibly teach or suggest that "the polymeric wall being more transmissive of an operative wavelength range of the radiation than the etchant liquid."

Tomita actually teaches away from using a processing chamber with a polymeric wall. As described above, Tomita teaches etching a silicon wafer at a temperature as high as possible so long as the temperature is below the boiling point of the etchant. In one example, the highest treatment temperature in the case of the chemical agent is about 290°C to 350°C when sulfuric acid is used as the etchant. If a polymeric material (e.g., FEP) is used to form Tomita's beaker, the FEP layer would be deformed if not melted in operation because the melting point for FEP is about 260°C, and the maximum service temperature of FEP is about 204°C. A partially deformed or melted beaker can cause serious safety concerns because the etchant used (e.g., concentrated sulfuric acid) can be highly corrosive and toxic.

Accordingly, Tomita does not anticipate claim 1 because Tomita fails to teach or suggest at least one feature of claim 1, and Tomita teaches away from having a processing chamber with a polymeric wall. Claims 2-7 are also patentable over Tomita because these claims depend from claim 1 and also because these claims contain additional features. Accordingly, the Section 102(b) rejection of these claims should be withdrawn.

**B. Response to the Section 103(a) Rejection – Tomita and Yokomizo**

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Tomita in view of Yokomizo. As discussed above, Tomita fails to teach or suggest at least one feature of amended claim 1, and Yokomizo fails to fill this void. As a result,

claim 10 is allowable over Tomita in view of Yokomizo because claim 10 depends from claim 1, and also because claim 10 contains additional features. Accordingly, the Section 103(a) rejection of claim 10 should be withdrawn.

C. Response to the Section 103(a) Rejection – Tomita and McNeilly

Claims 9, 11-17 and 19-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tomita in view of McNeilly. As discussed above, Tomita fails to teach or suggest at least one feature of amended claim 1, and McNeilly fails to fill this void. Claims 11 and 19 have been amended to contain subject matter generally analogous to claim 1. As a result, claims 11 and 19 are allowable over Tomita in view of McNeilly. Claims 9, 12-17 and 20-27 are also allowable over Tomita in view of McNeilly because these claims depend from claims 1, 11 or 19, and also because these claims contain additional features. Accordingly, the Section 103(a) rejection of claims 9, 11-17 and 19-27 should be withdrawn.

D. Response to the Section 103(a) Rejection – Tomita, Yokomizo, and McNeilly

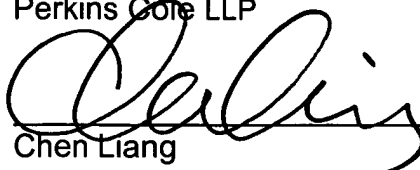
Claims 18 and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tomita in view of McNeilly and Yokomizo. As discussed above, Tomita fails to teach or suggest at least one feature of amended claim 1, and Yokomizo and McNeilly fail to fill this void. As a result, claims 18 and 28 are allowable over Tomita in view of Yokomizo and McNeilly because these claims depend from claims 11 and 19, respectively, and also because these claims contain additional features. Accordingly, the Section 103(a) rejection of claims 18 and 28 should be withdrawn.

E. Conclusion

In view of the foregoing, the pending claims are patentable over the applied references. The applicants respectfully request reconsideration of the application and a Notice of Allowance. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned representative at (206) 359-6038.

Respectfully submitted,

Perkins Coie LLP

A handwritten signature in dark ink, appearing to read 'Chen Liang', is written over a horizontal line.

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